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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|-----------------|-------------|----------------------|------------------------|------------------|
| 10/828,789      | 04/21/2004  | Robert Mariani       | 02104CIP (3600-419-01) | 5079             |

7590 08/11/2008  
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| EXAMINER |
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MAI, NGOCLAN THI

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| ART UNIT | PAPER NUMBER |
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1793

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| MAIL DATE | DELIVERY MODE |
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08/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/828,789 | <b>Applicant(s)</b><br>MARIANI, ROBERT |  |
|                              | <b>Examiner</b><br>NGOCLAN T. MAI    | <b>Art Unit</b><br>1793                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-24, 27, 52-53, 56, 91 and 93 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-22, 52, 53, 91 and 93 is/are allowed.
- 6) ☒ Claim(s) 23, 24, 27 and 56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-4, 6-24, 27, 52-53, 56, 91, and 93 are currently under examination, wherein claims 1, 27, and 56 are currently amended in applicant's amendment filed on 5/14/08.

### ***Status of Previous Rejection***

2. The previous rejection to claims 1-3, 6, 9, 11-13, 17-18, 27, 52 and 56 is withdrawn in light of applicant's argument and amendment filed 5/14/08. The previous rejection of claims 23-24 under 35 U.S.C. 103 in the Office action of dated 4/18/08 is maintained. The rejection was made in previous office action and is incorporated herein by reference.

Upon further consideration and search the amended claims 27 and 56 are rejected as follow.

### ***Claim Rejections - 35 USC § 103***

3. Claims 27 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reichert et al (U.S. Patent No. 6,193,779) in view of Hall (U.S. Patent No. 2,675,310).

Reichert discloses a method for making sintered anode comprising sintering a valve metal powder sintering a valve metal powder (col. 4, line 61 to col. 5, line 9) wherein said valve metal powder is tantalum powder having a BET of from about 1.5 m<sup>2</sup>/g to about 10 m<sup>2</sup>/g (col. 3, lines 41-42), a Scott density from about 10 g/in<sup>3</sup> to about 20 g/in<sup>3</sup> (tables in the EXAMPLES), a particle size from about 30 nm to about 300 nm, and an agglomeration greater than 10 microns (col. 3, lines 15-21).

In reference to claim 27, Reichert differs from the claim in that Reichert does not teach (1) sintering in the presence of iodine source and (2) deoxidizing said sintered valve metal powder in the presence of oxygen getter.

Concerning issue (1) Hall teaches of a method for consolidating valve metal powders such as tungsten, molybdenum, tantalum and titanium by sintering the metal powders in the presence of a halogen source such as iodine. Hall teaches that the rate of sintering of valve metal powders is greatly accelerated at temperatures below the melting point of the metals by performing the heating/sintering in a halogen atmosphere including chlorine, bromine or iodine as a reactive gas or vapor. See lines 53-55 in column 1, lines 1-5 in column 2, lines 17-49 in column 3 and lines 39-49 in column 8 of Hall.

Based upon the teaching of Hall, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to perform the sintering of valve metal powders taught by Reichert for forming valve metal capacitor anodes taught by Applicant in the presence of at least one iodine source since Hall teaches that the presence of iodine during the sintering of a valve metal powder such as tantalum serves to greatly accelerate the rate of sintering.

Concerning issue (2) Reichert teaches deoxidizing valve metal powder in the presence of magnesium deoxidizing before sintering (col. 4, lines 26-54) and not after as recited by the instant claim. However it is well settled that the order of performing a certain step is an obvious variant to one of ordinary skill in the art in the absence of unexpected results. In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946).

In reference to claim 56, while Reichert does not specifically teach anodizing after sintering, it is well known the art to anodizing anode in order to form capacitor anode. Therefore, to anodizing the anode of Reichert in view of Hall in order to form the claimed capacitor anode would have been obvious.

#### ***Response to Arguments***

4. Applicant's arguments filed 5/14/08 have been fully considered but they are not persuasive in reference to claims 23-24. Applicant argument that "Hall is not forming a porous, bonded valve metal powder or a sintered porous body. and the like" and the teaching of admitted prior art in combination of Hall would produce a dense product and not a porous bonded valve metal powder, at page 7 of argument is not convincing because claims 23-24 does not require that the product being porous.
5. Claims 1-4, 6-22, 52-53, 91, and 93 are deemed allowable.

#### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1793

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGOCLAN T. MAI whose telephone number is (571)272-1246.

The examiner can normally be reached on 8:30-5:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art Unit  
1793

n.m.